

CLOCK FREQUENCY MONITOR

ABSTRACT

5 A frequency monitor circuit (FMC) that is part of an integrated circuit chip for monitoring the frequency of one or more clocks present on the chip is disclosed. The FMC includes a reference window generator, operative to output a reference window signal of a given duration, and a clock counter,
10 operative to count all pulses, in any one of the clocks, that occur within the duration of the reference window and to output a corresponding pulse count. The FMC further includes two or more comparators, each operative to compare the pulse count with a respective given threshold value and to output a corresponding
15 indication of frequency deviation. In one configuration, in which the clock is generated on the chip by a frequency multiplier, the reference window generator and the clock counter are shared between the frequency monitor circuit and the frequency multiplier.